

REMARKS

Applicants submit that by the present Amendment and Remarks, this Application is placed in clear condition for immediate allowance. At the very least, the present Amendment places the Application in better condition for Appeal by reducing the number of issues, because claim 34 has been amended as suggested by the Examiner to overcome the rejection under the second paragraph of 35 U.S.C. § 112. This being the case it is clear that the present Amendment does not generate any new matter issue or any new issue for that matter. Accordingly, entry of the present Amendment and Remarks, and favorable consideration, are solicited pursuant to the provisions of 37 C.F.R. § 1.116.

Claims 34 through 45 were rejected under the second paragraph of 35 U.S.C. § 112.

In the statement of the rejection the Examiner asserted that independent claim 34 is indefinite as to whether the second isolation region or the second active region is in contact with the insulating layer. This rejection is traversed.

Initially, Applicants maintain that one having ordinary skill in the art would have harbored no doubt as to how to interpret claim 34 in light of and consistent with the written description of the specification, notably Fig. 2 and the related discussion thereof in the written description. That is the judicial standard. *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993).

At any rate, in order to expedite prosecution and with no intention to limit the scope of the claimed invention, claim 34 has been amended to clarify that it is the second isolation region which is in contact with the insulating layer, as clearly shown in Fig. 2, and as would have been understood by one having ordinary skill in the art.

Based upon the foregoing, it should be apparent, and is apparently acknowledged by the Examiner, that one having ordinary skill in the art would have no difficulty understanding the scope of the now claimed invention, particularly when reasonably interpreted in light of and consistent with the written description of the specification which, again, is the judicial standard. *Miles Laboratories, Inc. v. Shandon, Inc., supra*. Applicants, therefore, submit that the imposed rejection of claims 34 through 45 under the second paragraph of 35 U.S.C. § 112 is not viable and, hence, solicit withdrawal thereof.

Claims 34, 35 and 45 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Kumagai.

In the responsive Amendment submitted April 14, 2005, this rejection was traversed by arguing that Kumagai neither discloses nor suggest a structure in which the second insulating film is in contact with the insulating layer formed on the semiconductor substrate, as claimed. Of course, at this time, the imposed rejection was predicated upon Figs. 5A-5C of Kumagai.

In the paragraph bridging pages 7 and 8 of the June 30, 2005 Office Action, the Examiner refers to Figs. 7A-7C of Kumagai, asserting that second insulation region 13 is in contact with insulating layer 14. This rejection is traversed.

The imposed rejection is under 35 U.S.C. § 102. In the statement of the rejection the Examiner begins with Figs. 5A-5C of Kumagai. At this point Applicants would stress that the factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003);

Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). In imposing the rejection under 35 U.S.C. § 102, the Examiner is required to specifically identify where in each feature of a claimed invention is to be found in an applied reference, particularly where such is not apparent as in the present case. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged, because the Examiner has failed to identify a **single device** in Kumagai corresponding to that claimed. Indeed, there are significant differences between the claimed semiconductor device and any semiconductor device disclosed by Kumagai that scotch the factual determination that Kumagai discloses a semiconductor device identically corresponding to that claimed.

Specifically, the Examiner apparently recognizes that in the semiconductor device depicted in Figs. 5A-5C, there is **no second insulating film which is in contact with the insulating layer formed on the semiconductor substrate**, as in the semiconductor device defined in independent claim 34. The Examiner cannot turn to the device illustrated in Fig. 7A-7C of Kumagai, because that is **not the same device** as in the device illustrated in Figs. 5A-5C of Kumagai. The Examiner is arbitrarily mixing features from disparate embodiments in Kumagai and then announcing the factual determination of lack of novelty. This retrospective selective picking and choosing of pieces is improper for two reasons. First, the necessity to pick and choose features from different embodiments underscores the fact that Kumagai does not, as a factual matter, disclose a semiconductor device identically corresponding to that claimed.

Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d

1559, 24 USPQ2d 1321 (Fed. Cir. 1992); In re Arkley, 455 F.2d 586, 172 USPQ 524 (CCPA 1972).

Furthermore, to whatever extent the Examiner may have had in mind a rejection under 35 U.S.C. § 103 predicated upon combining the device illustrated in Figs. 5A-5C and the device illustrated in Figs. 7A-7C, any such attempt does not withstand scrutiny for several reasons. This is because in the structure shown in Fig. 5A of Kumagai, the gate array is formed at a thick SOI. Only one type of film thickness is disclosed for the isolation oxide film. The p-n isolation corresponds to junction isolation. However, the structure illustrated in Fig. 7A of Kumagai has a gate array formed at a thin SOI (SIONX). Only one type of film thickness is disclosed for the isolation oxide film. The p-n isolation employs a complete isolation structure, and a complete isolation structure is also employed for the isolation in the well.

Kumagai discloses an approach where the SOI film prior to fabricating a semiconductor device has a different film thickness. Kumagai, however, **fails to disclose an approach directed to the coexistence of a plurality of isolation structures**, as in the claimed invention. Moreover, this is no suggestion about combining the structures of Figs. 5A and 7A. This is because the structure of Fig. 5A corresponds to formation of **a well** (region 9); whereas, the structure of Fig. 7A **does not contain any such well**. Therefore, the structures of Fig. 5A on the one hand, and Fig. 7A on the other, merely relate to the fabrication technique of a semiconductor device having respective SOI films of **different film thicknesses**.

It is noted that in accordance with the patent text related to Figs. 7A-7C (column 4, lines 64 and 65), it is disclosed that a bipolar transistor is not provided, although the merit of low capacity is mentioned, in an SOI structure of thin film thickness. Ergo, a factual basis exists upon which to predicate the conclusion that one having ordinary skill in the art would not have

been led to the concept of employing a partial isolation structure for the SOI structure of a thin film thickness exhibiting superiority in low junction capacity. There is simply no apparent reason why one having ordinary skill in the art would have been motivated to combine isolated features from the Fig. 5A structure and the Fig. 7A structure.

The above argued differences between the claimed semiconductor device and any semiconductor device disclosed by Kumagai **undermines the factual determination** that Kumagai discloses a semiconductor device identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., supra; Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986)*. Further, based upon the arguments submitted *supra*, there is no apparent reason why one having ordinary skill in the art would somehow have been realistically led to mix and match pieces from different embodiments disclosed Kumagai to arrive at the claimed invention absent, of course, improper reliance upon Applicants' disclosure. *Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985)*.

Applicants, therefore, submit that the imposed rejection of claims 34, 35 and 45 under 35 U.S.C. § 102 for lack of novelty as evidenced by Kumagai is not factually viable and, hence, solicit withdrawal thereof.

Claims 36 and 37 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Ogoh.

This rejection is traversed. Specifically, claims 36 and 37 depend from independent claim 34. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 34 under 35 U.S.C. § 102 for lack of novelty as evidenced by

Kumagai. The secondary reference to Ogoh does not cure the previously argued deficiencies of Kumagai. Accordingly, even if the applied references are combined as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Applicants, therefore, submit that the imposed rejection of claims 36 and 37 under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Ogoh is not factually or legally viable and, hence, solicit withdrawal thereof.

Claims 38 through 40 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Nagakubo et al.

Initially, claim 38 through 40 depend from independent claim 34. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 34 under 35 U.S.C. § 102 for lack of novelty as evidenced by Kumagai. The secondary reference to Nagakubo et al. does not cure the previously argued deficiencies of Kumagai.

Further, Applicants strenuously separately argue the patentability of claims 38 through 40. In this respect, Applicants note that in stating the rejection, the Examiner referred to Fig. 6 of Nagakubo et al. and concluded that one having ordinary skill in the art would have been motivated to modify Kumagai's semiconductor device by forming the second insulating film completely through the semiconductor layer to separate the active regions into island substrate regions. This conclusion does not withstand scrutiny.

The Examiner did **not**, repeat **not**, establish the requisite fact-based motivation to support the asserted obviousness conclusion. This is because in order to establish the requisite realistic

motivation, the Examiner must make clear and particular factual findings as to a specific understanding or specific technological principle and, based upon such **facts**, explain **why**, one having ordinary skill in the art would have been realistically led to modify particular prior art, in this case Kumagai's specific semiconductor device, to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002); *Ecolochem Inc. v. Southern California Edison, Co.*, 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). That burden has not been discharged.

Indeed, it should be apparent that the semiconductor device disclosed by Nagakubo et al. is **completely different** from Kumagai's semiconductor device. In fact, Nagakubo et al. do not even disclose CMOS transistors on an **SOI substrate**. Significantly, insulating films 110, 111 in the Fig. 6 device of Nagakubo et al. **do not even separate regions of different conductivity types** as in the claimed invention. These dramatic and significant differences between Kumagai's semiconductor device on the one hand and the semiconductor device disclosed by Nagakubo et al. on the other hand, undermine the asserted motivation.

Moreover, the Examiner did not factually establish that Kumagai even desires the active regions to be formed into island regions. The Examiner did **not** provide any fact-based reason in explaining **why** one having ordinary skill in the art would somehow have been realistically led to **completely restructure** Kumagai's semiconductor device, based upon an **SOI** substrate, in view of an isolated feature unearthed in Nagakubo et al. in a **completely different type of device**. *In re Lee, supra*; *Ecolochem Inc. v. Southern California Edison, Co., supra*; *In re Kotzab, supra*; *In re Dembiczak, supra*; *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).

Based upon the foregoing it should be apparent that a *prima facie* basis to deny patentability to the claimed invention has not been established for lack of the requisite factual basis and want of the requisite realistic motivation. Applicants, therefore, submit that the imposed rejection of claims 38 through 40 under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Nagakubo et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Claims 41 through 44 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Nagakubo et al. and Yatsuda et al.

This rejection is traversed.

Claims 41 through 44 depend from claim 38 which, in turn, depends from independent claim 34. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 34 under 35 U.S.C. § 102 for lack of novelty as evidenced by Kumagai, and the arguments previously advanced in traversing the imposed rejection of claim 38 under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Nagakubo et al. The additional reference to Yatsuda et al. does not cure the previously argued deficiencies of in Kumagai or the previously argued deficiencies in the attempted combination of Kumagai and Nagakubo et al.

Applicants, therefore, submit that the imposed rejection of claims 41 through 44 under 35 U.S.C. § 103 for obviousness predicated upon Kumagai in view of Nagakubo et al. and Yatsuda et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

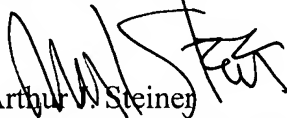
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Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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